

COMMERCIAL FISHERIES REVIEW

formerly "FISHERY MARKET NEWS"



THE FAO CONFERENCE AT COPENHAGEN

AND

THE FISHERIES OUTLOOK IN SOME EUROPEAN COUNTRIES

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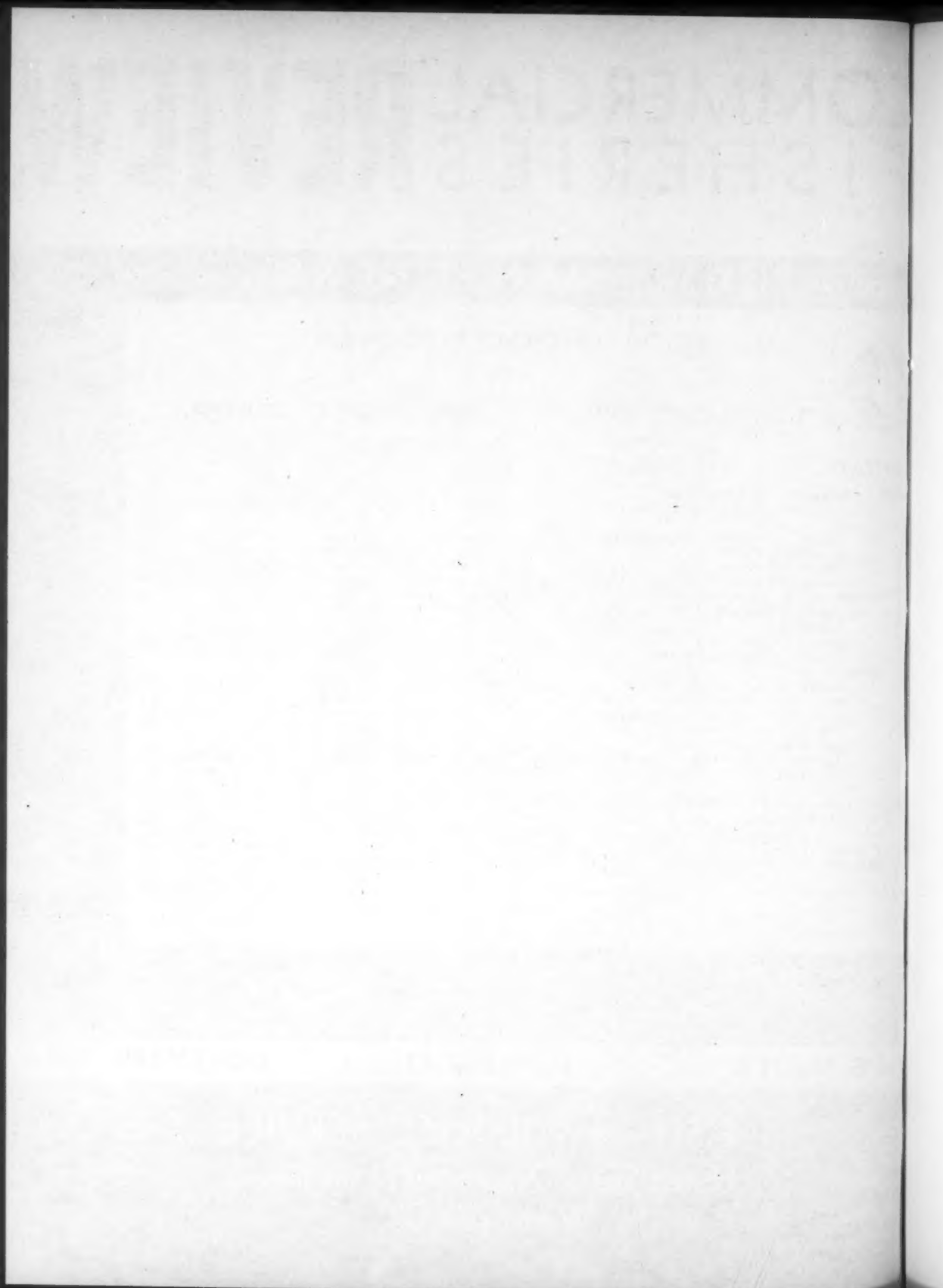
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Vol. 8, No. 11 A

SUPPLEMENT

NOVEMBER 1946

FISH and WILDLIFE SERVICE
United States Department of the Interior
Washington, D.C.





COMMERCIAL FISHERIES REVIEW



A REVIEW OF DEVELOPMENTS AND NEWS OF THE FISHERY INDUSTRIES
PREPARED IN THE DIVISION OF COMMERCIAL FISHERIES

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Applications for **COMMERCIAL FISHERIES REVIEW**, which is mailed free to members of the fishery industry and allied interests, should be addressed to the
Director, Fish and Wildlife Service, United States Department of the Interior, Washington, 25, D.C.


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THE FAO CONFERENCE AT COPENHAGEN AND THE FISHERIES OUTLOOK IN SOME EUROPEAN COUNTRIES

By A. W. Anderson*

THE FAO CONFERENCE AT COPENHAGEN

Introduction



The Food and Agriculture Organization of the United Nations was established at Quebec in October 1945 (1) to contribute to an expanding world economy by raising levels of nutrition and standards of living, improving the production and distribution of food and agricultural products, and bettering the conditions of rural populations. Its constitution provides that, with respect to nutrition, food and agriculture, FAO shall collect, analyze and disseminate information, promote and recommend national and international action, and furnish technical assistance and organize missions as member governments may request. Representatives of 23 nations comprised the Fisheries Committee at the Quebec Conference and were responsible for developing a program for FAO's proposed Fisheries Division. (2)

Since the Quebec Conference progress in FAO matters has been mainly organizational in character. Several Ad Hoc committee meetings (3) of available international fishery representatives were held in Washington, primarily in preparation for a Special Meeting on Urgent Food Problems held under FAO auspices in Washington in May 1946. (4,5)

*Chief, Division of Commercial Fisheries. Fishery Adviser at Copenhagen to the U. S. Member, Under Secretary of Agriculture Norris E. Dodd, and member of Standing Advisory Committee on Fisheries for FAO. (The first meeting of the latter Committee took place at Bergen, Norway, immediately prior to the FAO Conference at Copenhagen.)

National FAO Committees have been set up in a number of countries to facilitate contacts between FAO and member governments outside the regular diplomatic channels. These National Committees represent all interested governmental agencies, and may include advisers from non-governmental organizations. The United States Committee--Interagency Committee on FAO--now is made up only of members from Federal agencies with the Department of Interior representative acting for fisheries interests. However, industrial and other representation is under consideration. When such advisers are named, it is expected that one or more fisheries representatives will be included.

Early in 1946, the establishment of seven Standing Advisory Committees--

Agriculture Production	Economics	Forestry	Statistics
Agriculture Research	Fisheries	Nutrition and Food Management	

was approved by FAO. The committees were expected to advise on subjects and problems referred to them by FAO, to initiate proposals for study and action, and to be consulted by FAO's Director-General and his staff on technical questions. It was expected they would increase the knowledge and experience available to FAO, assist in securing the support of authoritative opinion for FAO's working policy, and create confidence in the soundness of its proposals and activities. The expert personnel making up the committee memberships were chosen for their technical qualifications and not as representatives of their governments. The first committee members were named for one year only.

Dr. D. B. Finn, formerly Deputy Minister of Canada's Department of Fisheries, was named as Director of the Fisheries Division of FAO in July 1946. In accordance with FAO policy, Dr. Finn has been attempting to staff the fisheries Division with technical personnel of the highest qualifications on as broad an international basis as possible.

Summary

On September 2, the Second Session of the Conference of the Food and Agriculture Organization opened at Copenhagen, Denmark. (6) Forty-one member nations were represented--33 by delegates and 8 by observers. Seven non-member governments and 10 intergovernmental organizations sent observers. In addition, four non-government international organizations occupied a special status as observers in accordance with FAO regulations. Applications of five new members were approved during the Session--making FAO's total membership 47 countries. (7)



The work of the Conference was divided among three Commissions. Commission A handled Technical Questions through six technical committees responsible for Agriculture, Nutrition, Forestry, Fisheries, Economics and Statistics, and FAO Missions. Commission B dealt with Organization and Administration problems through two committees. Commission C considered World Food Policy through two committees--one on the World Food Board and one on 1946-47 Food Situation.

The principal item on the agenda for the Conference was consideration of the long-term problems concerned with production, distribution, and consumption of food and agricultural products. The Director-General of FAO, as requested by

the Special Meeting on Urgent Food Problems, submitted to the Conference a report (8) on these matters. The report--Proposals for a World Food Board--recommended the establishment of a World Food Board whose functions would be:

- "1. To stabilize prices of agricultural commodities on the world markets, including provision of the necessary funds for stabilizing operations.
- "2. To establish a world food reserve adequate for any emergency that might arise through failure of crops in any part of the world.
- "3. To provide funds for financing the disposal of surplus agricultural products on special terms to countries where the need for them is most urgent.
- "4. To cooperate with organizations concerned with international credits for industrial and agricultural development, and with trade and commodity policy, in order that their common ends might be more quickly and effectively achieved."

He further suggested that if the Proposals were accepted in principle that a representative committee consisting of FAO member governments and international organizations be appointed to develop a specific plan for establishing the contemplated agency.

After Commission C had examined the Director-General's Proposals for a World Food Board, the Conference adopted its report.(9) The general objectives of the Proposals were accepted and described in the report as:

- (a) developing and organizing production, distribution and utilization of the basic foods to provide diets on a health standard for the peoples of all countries;
- (b) stabilizing agricultural prices at levels fair to producers and consumers alike.

The terms of reference for the Preparatory Commission included, in addition to the study of the Director-General's Proposals and alternative proposals, the preparation of concrete recommendations and propositions for international action for achieving the objectives of the Proposals described under (a) and (b) above.

In particular, the report recommended that the Preparatory Commission consider:

- (a) the principles and organization involved in the Proposals of the Director-General and in any other relevant proposals and documents (e.g., the First Report of the Standing Advisory Committee on Economics and Marketing):(10)
- (b) particular proposals applicable to particular commodities, bearing in mind that the scope of the Commission's recommendations may cover any agricultural products including forest products and fish and marine products, and
- (c) the order of precedence to be given to consideration of the different products, giving priority to essential foodstuffs.

The report also agreed that international machinery was necessary to achieve the objectives and recommended that a Preparatory Commission of 16 FAO members be appointed to carry the proposals further. As important food producers, the U.S.S.R. and Argentina were invited to become full members of the Commission, and Siam was

invited as a full member with respect to rice. In addition, various international organizations were invited to send representatives who could take full part in the discussions but not vote or sign the Preparatory Commission's report.

Members of the Preparatory Commission were named and its representatives scheduled to meet in Washington by November 1. The final report of the Preparatory Commission, to be expedited because of the urgency of the issues to be discussed, is to be submitted to the Director-General to obtain the views of his Executive Committee and for circulation to member governments of FAO and the international agencies concerned. It is then to be considered as soon as possible by an FAO Conference after which the report and the Conference's recommendations are to be forwarded to the United Nations through appropriate channels. Members of the Preparatory Commission have been meeting since October 28, and it has been indicated that their report may be completed early in January.

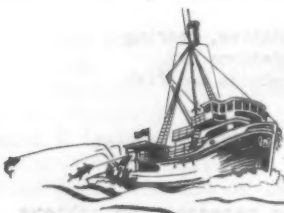
There follows a number of Conference reports dealing directly with fisheries activities. They include:

1. The full report of the Technical Committee on Fisheries.
2. Reports to the Technical Committee on Fisheries by EECE and UNHRA.
3. Report of the Technical Committee on Fisheries to the Nutrition Committee on the nutritive value of fishery products.
4. That part of the report of the Committee on Economics and Statistics discussing a World Census of Fisheries.
5. A summary of the report of the earlier meeting of the Standing Advisory Committee on Fisheries.
6. Summaries of similar reports of the Standing Advisory Committees on Statistics and on Economics and Marketing with reference to their fisheries recommendations.

Following the above reports and summaries, there are excerpts on fisheries matters from several other more general reports submitted to the Conference. The excerpts are from reports entitled:

1. First Annual Report of the Director-General to the FAO Conference
2. World Food Appraisal for 1946-47
3. World Food Survey
4. FAO Mission for Greece

Full Report of Fisheries Committee



TUNA CLIPPER

International fisheries problems at Copenhagen were considered by a technical fisheries committee--Committee IV (Fisheries)--established under Commission A. Sixteen countries appointed one or more representatives to attend Committee meetings. In addition, there was an observer from Sweden and one from the Economic Emergency Council for Europe. The Committee's full report and the list of members follow:

REPORT OF COMMITTEE IV ON FISHERIES TO COMMISSION A (11)

The gradual transition of a world organized for war towards one organized for peace and the part which FAO is playing in that movement, make necessary a continued review of the fisheries problem.

Certain wartime institutions have disappeared and others are about to be dissolved. Still others have changed in nature. Certain types of controls have been relaxed and nations are working out new agreements. All these have a bearing on the approach of FAO to fisheries since it is necessary to take them into account in order to assess the relative urgency of the many fields of action open to the newly formed Fisheries Division of the Organization.

The Committee has endeavored, in the short time at its disposal, to consider matters in the light of the above and makes the following report:

Director-General's First Report to the FAO Conference: This report was received with approval. (12)

Place of Fisheries in a World Food Board: The Committee has also considered the part which fisheries should play in the Proposals for a World Food Board. (8)

The Director-General's report (12) refers throughout to agriculture and, in fact, fish and fish products are not specifically mentioned. Nevertheless, it is stated that certain livestock products capable of being stored for long periods might be included directly in the operations.

The Fisheries Committee, in its report (2) to the First Session of the FAO Conference, stressed the fact that a tangible solution to the fundamental problem of the irregularity of certain kinds of fish supply may be the application of the buffer stock principle to products such as salted and canned fish, fish oils, fish meal and vitamin oils, and the application of new methods of fish preservation to other fish products.

Consequently, the Committee attaches the greatest importance to the definite inclusion of fish and other marine products within the ambit of any World Food Board's operations, and this should not be left to be vaguely assumed. Such products should be specifically mentioned.

The Committee accordingly recommends that the following should be conveyed to the appropriate commission:



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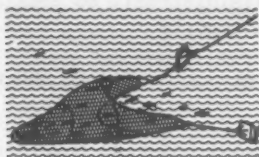
"The Fisheries Committee recommends that fish and marine products should be definitely brought within the ambit of the proposed World Food Board, always bearing in mind that the Board may have to exercise functions in addition to those suggested for the Board in the document entitled 'Proposals for a World Food Board'."

Report of FAO Standing Advisory Committee on Fisheries: The Committee has studied with interest the Report of the Standing Advisory Committee on Fisheries (13) which contains recommendations on a considerable number of subjects. This was based in part on the recommendations made to the Director-General by the Ad Hoc Committee on Fisheries 6-9 March 1946. (3) The latter report in turn includes

a number of recommendations (2) approved at the Quebec Conference as to the part that might be played by FAO in connection with Fisheries. These are dealt with in subsequent paragraphs.

The first of the matters stressed in the Report of the Standing Advisory Committee on Fisheries is the problem of surpluses. It should be emphasized that surpluses can also lead to the limitation of fishing and to the wholesale destruction of valuable fish catches because they are incapable of being distributed to those who need them. Surpluses also occur in certain countries in the case of fresh-water fish.

But the problem of surpluses, while acute in certain northwest European countries, is by no means universal. Other problems await the attention of FAO. In many countries there are large potential fish stocks, which are at present not available to the consumer. Here the problem is one of development of the fishing industry involving such questions as boat building, selection and provision of suitable gear and training in its use, preservation and refrigeration, landing, marketing and distribution, processing, and finally scientific research.



OTTER TRAWL

Apart from this there is the question (which already arises in many countries and is bound to arise in others) of developing necessary facilities for the manufacture of fish meal and oils, and for the processing of fish that cannot be distributed conveniently in a fresh condition to the consumer.

Furthermore, while it is clearly visualized by the Standing Advisory Committee that FAO should play its part in the overfishing problem, which in relation to the North Sea and other areas adjacent to the British Isles, has already formed the subject of an International Conference in London in April 1946, there is the question of regulation of production quite apart from its application to the overfishing problems.

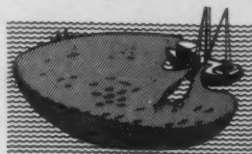
Lastly, there is the problem of fish prices. It has been necessary in certain countries to fix prices both for home consumption and for export. It might well be necessary for the purpose of an economic fishing industry for this practice to be continued.

In the solution of all these problems, the Committee considers it essential that FAO should play its part, but it must provide itself in the first instance with all the necessary information on the subject.

Recommendation of Special Meeting on Urgent Food Problems: The Committee supports the recommendations respecting fisheries in the Report of the Special Meeting on Urgent Food Problems, (4,5) as follows:

- (a) that the Emergency Economic Committee for Europe (EECE) be asked to continue its work concerning fisheries throughout 1946-47; and
- (b) that FAO be asked to undertake a study of the longer term fisheries problems, including impediments to inter-national trade in fish and fish products, the dangers of overfishing, and the possibilities of over-investment in fishing fleets and fish-producing facilities.

The long term studies mentioned in (b) will involve an examination of international policies regarding trade arrangements, credits, and the effect of tariffs and of monetary exchange rates. They will include an exploration for improvement of processing, marketing, distribution, and fisheries production. They will also involve biological studies of optimum production for maximum sustained yield. Thus, in addition to the immediate field of work of FAO, it will be necessary for the Organization to place at the disposal of other special branches of the United Nations--such as the Economic and Social Council and other agencies, as well as the proposed International Trade Organization--such data as will be required to gain their assistance in forwarding the aims of FAO. This will make it possible for the various organs of the United Nations to work towards a common end with the minimum of duplication. The Committee advises that fisheries research as such in all its phases be kept within the ambit of FAO.



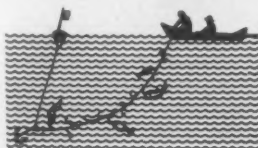
PURSE SEINE

Organization of Fisheries Division: The Committee also takes note of the Standing Advisory Committee's recommendations (13) regarding the organization of the Fisheries Division of FAO. The Committee desires to support the proposal to divide the Division into three main branches, Economic, Biological, and Technological, and attaches importance to every effort being made by the Division immediately to secure the right men to take charge of these three branches. The Committee also considers that the necessity has already arisen for the addition of an Assistant Director to the staff of the Division. The Committee supports the proposed allocation of duties as between these branches, which will no doubt be able to absorb the further responsibilities outlined earlier in this Report.

It is evident that all three of these branches will be included in the work leading to a solution or partial solution of the problem of securing adequate production and proper distribution of surplus without making it dependent upon a restriction in production. It agrees with the Ad Hoc Committee, (3) which deemed this as being the most immediately urgent fisheries problem.

It is proposed with respect to the Economic Branch of the Fisheries Division that its work be concerned with the particular economic efficiencies in the field internal to the structure of fisheries activities; for example, the relation or interchangeability of one kind of fisheries product with another, the effect of availability of skills and of raw material entering into manufacture, and like problems. In effect, while the Economic Division of FAO itself is concerned with policies dealing with food as a whole, the Economics Branch of the Fisheries Division will be concerned with those aspects pertaining to fisheries itself.

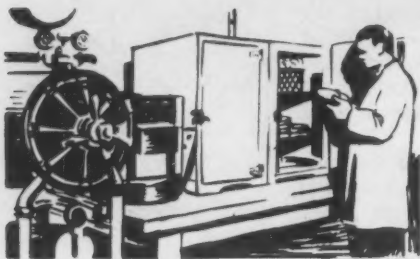
It is realized that the Economics Branch of the Fisheries Division cannot operate successfully apart from the Technological Division, since closely related to any marketing and consumption problem is the problem of the technology of production, preservation, transportation and storage. This is particularly true in certain parts of the world where lack of equipment and of physical facilities is often the limiting factor to production, distribution, and consumption. It is also true that the perishability of a food product conditions the type of commodity agreement possible. For instance, the device of buffer stocks could be successfully employed



TRAWL LINE

if significant deterioration could be prevented over a fairly long period of time, but not otherwise.

It is recommended that the function of the Technological Branch be to make known existing methods of production, manufacture, and preservation, and, if necessary, to stimulate research on new methods or other devices of handling which would make feasible the introduction of whatever economic plans were determined to be applicable. The Technological Division should play a major role in collecting and disseminating information with respect to byproducts and pharmaceutical products from marine resources and should be prepared to make available technical advice to certain governments where the lack of proper methods of handling is a limitation to consumption of food which may be at hand.



The problem of "surpluses" and shortages are related to those of conservation and the development of fisheries resources. These latter are the concern of the Biological Branch, since by unrestricted fishing not only is an irregular supply brought about, but the depletion of certain fishing regions in the sea causes a migration of fishing effort to regions more remote from markets, intensifies competition, elevates costs, and adversely affects the quality of product, as well as causing international disturbances and animosities. On the other hand, the development of hitherto unused fisheries resources may greatly contribute to a more satisfactory diet for undernourished people, as well as creating additional demands and increasing the amount of food available.

Relationship to International Government and Public Bodies: Concerning the "Relationship to other International Governmental or Public Bodies," the Committee believes that the closest contact should be established between FAO and ICES (International Council for the Exploration of the Sea) but it is considered that the precise form of collaboration can best be settled by the Director (who attended the 34th meeting of ICES at Stockholm in August 1946) after discussion with the Secretary-General of the Council. In these discussions, the Committee considers that the question of the collection of Fishery statistics should play a primary part.

The Committee notes that other International Organizations similar to ICES are proposed and that, as a beginning, three in particular are suggested in the following areas: The Mediterranean (where a Council existed before World War II), North America, and the South Western Pacific. The Committee considers that, in addition, a fourth organization should be constituted for the Southern Africa group of countries (including Madagascar), lying, say, south of the Equator. The Committee realizes, however, that this objective may only be achieved in a series of gradual stages, and it may well be that some of the areas proposed may prove too large to be served by a single organization.

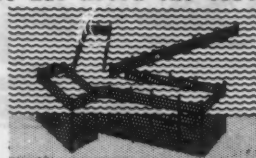


ANCHOR GILL NET

The question of the relationship of FAO with non-governmental bodies, such as international associations of the trade, will no doubt emerge in the near future

and the Committee is aware of the existence of a number of international organizations not dealing primarily with fisheries as such, with whom the Fisheries Division of FAO might find it useful to cooperate. It wishes to emphasize the desirability of FAO maintaining close contact with such international organizations as the Institute of Food Technologists and the Comité Internationale de la Conserve, including full exchange of information as to plans, achievements and progress.

Emergency Economic Council for Europe: With regard to the future work of the Emergency Economic Council for Europe, the Committee has noted the efforts of the EEC* to bring about increased production and consumption of fisheries products in European countries. In spite of the difficulties which EEC has encountered, the Committee believes that fish supplies can and should be used in greater quantities to meet, in part, the critical food shortages which are likely to prevail in certain areas of Europe during the next 12 months.



POUND NET

1. In order to promote this objective, until such time as an FAO European regional office is established, it is recommended that the EEC continue to keep the fish supply situation under review and to use its good offices in bringing supplying countries and consuming countries together on matters of mutual interest.
2. Financial difficulties (i.e., budgetary, price, and exchange problems) appear to constitute the greatest single obstacle to expanded consumption of fish in European countries. The Committee understands that these difficulties in the way of the movement of goods to satisfy urgent needs have been referred to the Assembly of the United Nations, and recommends that the important question of fish supplies should be considered in connection with the general inquiry.
3. The Committee believes that existing facilities for production of fishery products can meet a considerable increase in demand. As a first step towards a more adequate utilization of fish supplies, it is recommended that the Conference call upon European countries desiring to import fish products or expand their present imports to indicate their potential requirements for the next year to the EEC as soon as possible.
4. It is recommended that a representative of the Fisheries Division of FAO be nominated as adviser to the Working Party of the EEC on Fish Supplies.

United Nations Relief & Rehabilitation Administration: The Committee has considered the UNRRA Resolution** presented to the Conference by the Director-General of UNRRA, and has consulted the Chief of the Agricultural Rehabilitation Division of UNRRA, on the projects undertaken by this organization for development of fisheries.*** It has also been in contact with members of the Committee I Commission A (Agriculture), and the Committee II, 1946-47 Food Situation, of Commission C, with a view to ensure that this proposal is in line with the position taken by these Committees.

* See p. 14 for EEC report.

** "RESOLVED, that the Council recommends that the Food and Agricultural Organization at its forthcoming meeting in Copenhagen consider the special problems of the liberated countries with a view to providing the maximum technical assistance in the expeditious establishment of their agricultural production."

*** See p. 17 for UNRRA report.

The Committee feels that the accomplishments of UNRRA in supplying fishery products to the people of liberated countries have been so great that it is a matter of the utmost urgency to ensure that this work is continued as long as the present crisis exists.

The Committee wishes to emphasize that fish is a valuable food and an important source of certain vitamins and is already available in such large quantities that surpluses occur even within short distances of populations in great need. Transportation and refrigeration problems offer obstacles but it is the opinion of the Committee that these difficulties can be overcome in most cases.



The perishability of fresh and frozen fish always offers a problem, but the Committee believes that this can be overcome by appropriate methods of handling, and that--especially in the

winter months--it should offer no insurmountable problem in the northern countries. It seems that then only financial difficulties remain.

The Committee finally wishes to refer to the statement made by Mr. Hoover at the Special Meeting on Urgent Food Problems in Washington in May 1946, (4,5) and feels that in accordance with this statement both the receiving populations and the supplying industries would benefit from an effort gradually to direct deliveries from relief organizations to usual trade channels.

The Committee accordingly considers that the question of continuing to supply fishery and marine products to liberated countries after the cessation of UNRRA's activities is a matter of great urgency, and is calling for action by the United Nations to ensure its continuance as long as the present crisis exists.

The Committee is further conscious of the very valuable work accomplished by UNRRA in connection with the rehabilitation of fisheries in liberated countries and feels that much of this work falls within FAO's program of advising and rendering active help to countries in the development of their fisheries.

The Committee therefore recommends that FAO should endeavour to obtain a complete report of the work of UNRRA for the development of fisheries and study the possibilities of ensuring completion of such projects as UNRRA has launched. FAO should also if possible take immediate steps to render help in the development of fisheries where it is most needed.

Statistics: In view of the need for more adequate statistics in relation to fisheries, the Committee is of the opinion that the coordination of such statistics should in the future be the responsibility of the Fisheries Division of FAO, in collaboration with the Statistical Division.

Regional Offices: Since many of the problems of fisheries are regional and urgent, the Committee desires to emphasize the importance to fisheries of the early establishment of regional FAO offices with adequate fisheries staff, as provided in Article X of the FAO Constitution.*

*ARTICLE X. Regional and Liaison Offices.

1. There shall be such regional offices as the Director-General with approval of the Conference may decide.
2. The Director-General may appoint officials for liaison with particular countries or areas subject to the agreement of the Government concerned."

Conclusion: In the preceding paragraphs the Committee has endeavored to indicate at least some of the more urgent problems in which FAO could play a useful part. Surpluses and shortages (where they exist), prices of fish, the question of fresh fish as opposed to frozen fish, marketing and distribution; the urgent need for the rehabilitation of the fishing industries which have been devastated by the ravages of war, including the building up of the fleets; and the development of fisheries in underdeveloped areas--these are all problems of the greatest urgency. An interchange of information on these problems as they exist and the solutions proposed for them in different countries during the next year or so is a matter which FAO might seek to secure, as the availability of this information can point the way to the remedial measures required.

In conclusion, the Committee would like to submit some general observations on the subject of fisheries. There can be no doubt whatever as to the vital importance of the fisheries of the world and of the high nutritive value of fish as a cheap food, but these matters tend to be overlooked. For example, in the World Food Survey made by FAO, mention is made of fish as a substitute for meat and emphasis is laid on the fact that there is a great shortage of animal protein and that seven to ten years may elapse before the herds in Europe attain their prewar numbers. Yet no figures are given for fish in that survey. This omission should be remedied since it leaves the impression that the importance of fish products as food is not yet fully appreciated.



The world's catch of fish prior to the World War II was calculated at 17 million metric tons, producing about 7 million tons of edible fish flesh; according to the FAO World Food Survey (14) this was 25 percent of the combined consumption of meat, fish and eggs in the United States of America, the United Kingdom, China, India, South Eastern Europe and South America. Moreover, a large portion of the fish catch has always been used for industrial and agricultural purposes by conversion to fish oil and meal.

It is clear that some countries are already moving toward a surplus position. Improvements are being constantly made in processing methods, and new products, (e.g., artificially dried fish and fish flour) are being created, all of which may help to eliminate some of the world's shortage of animal protein.

The fishing grounds of the world are teeming with fish of all kinds. Fisheries are an international resource. The harvest awaits the reaper, especially in underdeveloped areas.

<u>Permanent Addresses and Titles of Those Attending Meetings of Committee IV (Fisheries)</u>		
<u>Belgium</u>	M. J.L.C. Fluymer	Secretary of Administration de la Marine, Ministry of Communications, Rue de la Loigo, Bruxelles
<u>Canada</u>	Dr. A.W.H. Needler	Director, Atlantic Biological Station, St. Andrews, N. B.
	Mr. Clive Planta	Secretary-Manager, Fisheries Council of Canada, Ottawa
	Mr. H.A. Gilbert	Commodity Officer, Foods Division, Dept. of Trade and Commerce, Ottawa
<u>Czechoslovakia</u>	Mr. Ladislav Holy	Chief of Division, Ministry of Foreign Trade, Prague
	Mr. Ferdinand Jurcovic	Chief of Division, Ministry of Food, Prague
<u>Denmark</u>	*Mr. B.S. Dinesen	Head of Section, Department of Fisheries, Copenhagen
	Mr. P.F. Erichsen	Department of Fisheries, Copenhagen
	Mr. Mogens Jul	Head of Technological Laboratory, Department of Fisheries, Copenhagen
<u>Egypt</u>	Mahmoud Bey Zaki	Under Secretary of State, Ministry of Commerce and Industry, Cairo
	Boutros Bey Bassili	Director, Plant Protection Section, Ministry of Agriculture, Cairo
<u>France</u>	M. Michel J. Girard	Secretariat General de la Marine Marchande, 3 Place Fontenoy, Paris XIV Administrateur de L'Inscription Marine
<u>Iceland</u>	Mr. David Olafsson	Director of Fisheries, Fisheries Association of Iceland, Reykjavik
<u>India</u>	Dr. Bains Prashad	Fisheries Development Adviser to the Government of India, Dept. of Agriculture, New Delhi
	Mr. S. Basu	Secretary for Agriculture, Bengal Government, Calcutta
<u>Italy</u>	The Hon. Prof. Vincenzo Rivera, M. P. Eugenio Rubino	Rome Consul of Italy, Ministry of Foreign Affairs, Rome
<u>The Netherlands</u>	Dr. D.J. van Dijk	Chief of Fisheries Section, 20 Wassenaarweg, Ministry of Agriculture, Fisheries and Food, The Hague

*Chairman of Committee

Permanent Addresses and Titles of Those Attending Meetings of Committee IV (Fisheries) (Cont.)

<u>The Netherlands</u> (Cont.)	Dr. C.J. Bottemann	Netherlands Indies Government, Voorburg, Near The Hague
<u>New Zealand</u>	Mr. N.S. McClumpha	New Zealand Marketing Dept., London
<u>Norway</u>	Mr. O. Brynjelsen	Director of Fisheries, Ministry of Fisheries, Bergen
	Mr. Olav Notevarg	Director, Norwegian Fisheries, Research Station, Bergen
	Mr. Nils Jangaard	Commercial Attache, Norwegian Embassy, Washington, D. C.
<u>Poland</u>	Dr. J.A. Borowik	Director of the Baltic Institute, Gdynia
<u>Union of South Africa</u>	Dr. C. von Bonde	Government Marine Biologist and Director of Fisheries, Capetown
<u>United Kingdom</u>	*Mr. A.T.A. Dobson	Fisheries Adviser, Fisheries Dept., Ministry of Agriculture and Fisheries, St. Stephen's House, Victoria Embankment, London, S. W.
<u>United States of America</u>	Mr. Andrew W. Anderson	Chief, Division of Commercial Fisheries, Fish and Wildlife Service, Dept. of the Interior, Washington 25, D. C.
<u>Economic Emergency Council of Europe</u>	Mr. Roy Kimmel	Assistant Agricultural Attache, American Embassy, London
<u>Sweden</u> (Observer)	Mr. M. von Wachenfelt	Agricultural Counselor, Swedish Legation, 29 Portland Pl., London, W 1
<u>FAO</u>	Dr. D.B. Finn	Director of Fisheries Division, FAO, 2000 Massachusetts Avenue, Washington, D. C.
	**Mr. H.C. Winsor	Fisheries Division, FAO, 2000 Massachusetts Avenue, Washington, D. C.

*Vice-chairman of Committee

**Secretary of Committee

Report of Emergency Economic Committee for Europe

REPORT BY THE WORKING PARTY ON FISH SUPPLIES FOR SUBMISSION BY THE EECE DELEGATION
TO THE FAO CONFERENCE*

1. Following the Emergency Conference on European Cereals Supplies held in London in April, a Working Party on Fish Supplies was set up to investigate the availability of supplies of fish in Europe and to attempt to overcome any obstacles which were hampering the movement of this food into consumption. At the FAO Special Meeting in Washington held on 20-27 May, the question of fish supplies again received attention. A recommendation was adopted in which the EECE was requested to continue its work in connection with fish supplies during the season

Table 1 - Total Fish Catch of Certain European Countries as Reported to EECE

Country	Prewar	1945	1946 (anticipated)
	Millions of kgs	Millions of kgs	Millions of kgs
Belgium	35.3	45.3	90.0
Denmark	87.6	125.0	180.0
France	370.0	130.0	160-200
Greece	20.0	8.5	-
Iceland	295.9	406.6	557.1
Italy	176.3	a/100.0	65.0
Netherlands	240.6	48.0	230.0
Norway	b/993.2	c/726.0	d/850.0
Portugal	210.2	-	-
United Kingdom	1099.0	704.0	1186.8

a/July 1945-June 1946

b/1935-1939

c/Preliminary total--Norwegian Director of Fisheries

d/In absence of EECE data estimated by Norwegian representatives at Fisheries meeting in Copenhagen.

1946-47. In order to do this effectively, the EECE must be in possession of information relating to anticipated production and consumption in 1946-47. The Working Party has held a number of meetings and reports have been made on the supplies of fish available and on the transport and financial problems involved in moving this food into human consumption.

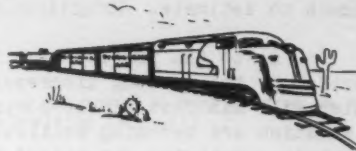
2. The activities of the Working Party have been along three main lines:

- (a) To stimulate negotiations between exporting and importing countries.
- (b) To find means of overcoming transport and handling difficulties.
- (c) To encourage the processing of any fish which cannot be handled in fresh or frozen form.

From the reports made of the existing supplies of fish available for export, it seemed desirable that direct contact should be established between supplier and potential purchaser to determine whether any arrangements could be made for the disposal of these supplies. On the recommendation of the Working Party direct contact was made between Portugal and U.K., Portugal, and UNRRA, and Denmark and the British and American Zones of Germany. The main difficulties were of a financial nature but eventually agreements were reached for the acquisition of the majority of the quantities available.

* F & A (46) 55, EECE, August 22, 1946. 17/18 Carlton House Terrace, London S.W. 1.

3. The Working Party has maintained close liaison with ECITO as transport difficulties are one of the main causes preventing fish reaching the consumer. Two conferences, under the auspices of ECITO, were held in Copenhagen in June in order to discuss where bottlenecks existed and what steps could be taken to facilitate the transport of fresh fish. At the second meeting, estimates of the quantity of fish for export from Scandinavia to other European countries were obtained and by considering these alongside the transport available, it was possible to arrange schedules of shipment. It has subsequently been ascertained that transport is now no longer one of the main causes preventing fish from passing into human consumption, though if supplies were to increase substantially there might be a shortage of refrigerator cars.



4. In its initial study, the Working Party considered the question of supplies of both fresh and processed fish. From the reports received, it was apparent that the main problem was that relating to fresh fish. The transport and distribution of processed fish presented little or no difficulty, chiefly owing to its longer keeping qualities. A surplus of fresh fish remained, however, and enquiries were made as to whether it was possible to increase the quantity of fish processed by the various methods. Shortages of ancillary materials were reported and were considered by the Working Party, but further action was deferred until more precise information had been obtained on the supply and demand situation for fish.

Table 2 - Imports of Fishery Products by Certain European Countries as Reported to EEC

Country	Prewar	1945	1946 (anticipated)	Mainly imported from --
	Millions of kgs	Millions of kgs	Millions of kgs	
Belgium	13.5	8.0	17.0	Denmark, France, U.K., Netherlands, Norway, & Sweden
Denmark	25.6	4.0	6.0	Sweden, Iceland, Greenland, & Norway
France	10.0	21.0	a/12.8	Iceland, Sweden, & Norway
Greece	17.4	b/10.9	-	U.K., Newfoundland, Denmark, Norway, France, Portugal, Turkey, Tunis, & Iceland
Iceland	nil	nil	nil	-
Italy	78.3	c/22.0	45.0	-
Netherlands .	14.2	10.9	6.4	U.K., U.S.A., Norway, & Canada
Norway	d/	d/	d/	-
Portugal	42.4	-	-	Norway, Iceland, & Newfoundland
United Kingdom	170.1	160.3	260.3	Norway, Denmark, Iceland, Netherlands, Portugal, Canada, & U.S.A.

a/Further imports expected from Canada, Netherlands, and Sweden.

b/July-December.

c/July 1945-June 1946.

d/Estimated by Norwegian representatives at Fisheries Committee meeting in Copenhagen to be negligible.

5. As a first step towards obtaining full information, a visit was paid to Germany by a member of the Working Party to ascertain what are likely to be the requirements of fish during the coming year. The authorities in both the British and American Zones have stated that owing to lack of adequate funds, it will not be possible to purchase large quantities of fish during the ensuing year. It

might be possible, if exports are increased, to use the funds thus raised to supplement that part of the budget set aside for food. There is, therefore, a potential demand for fish in Germany but the extent to which it can be met is difficult to estimate.

6. As to the problems for the immediate future, the Working Party calls attention to the growing discrepancy between demand and supply of fish in Europe which will manifest itself during the coming year. It is impressed by the quantities which are becoming available in 1946-47 and which will reach and in several supplying countries far exceed prewar levels. It considers, however, with concern the development in countries of Central, Eastern and Southern Europe, normally deficiency areas for fish and with increased potential requirements under present conditions of severe scarcity in other foodstuffs. Since it appears that these great potential demands cannot be made effective on account of budgetary limitations with the occupation authorities in Germany and through other financial obstacles following the cessation of UNRRA's activities in those countries for which up to the present it has been responsible and as this financial problem falls outside its scope, the Working Party strongly urges its early consideration by the appropriate international Agencies and will keep the situation under constant review.

Table 3 - Exports of Fishery Products from Certain European Countries as Reported to EECE

Country	Prewar	1945	1946 (anticipated)	Mainly exported to --
	Millions of kgs	Millions of kgs	Millions of kgs	
Belgium	7.5	nil	40.0	France, U.K., Germany, Italy, & Switzerland
Denmark	53.4	46.5	120.9	-
France	13.5	nil	-	-
Greece	nil	nil	nil	-
Iceland	89.9	161.7	-	Portugal, Italy, U.K., Germany, Spain, & Cuba
Italy	3.8	nil	-	-
Netherlands.	149.5	4.7	144.4	Germany, Belgium, France, Poland, Czechoslovakia, & U.K.
Norway	a/	a/	a/	-
Portugal ...	50.8	42.7	-	U.K. and Germany
United Kingdom ...	253.0	18.6	59.0	Germany, France, & Poland

a/Estimated by Norwegian representatives at Fisheries Committee meeting in Copenhagen as about 70 percent of catch in prewar years, 60 percent in 1945, and 65-70 percent in 1946.

7. To this end, the Working Party suggests that it should continue in existence to keep the fish situation under review and meet at the suggestion of any of its members or of the Secretariat to deal with any specific problems connected with fish which may arise.

8. The Working Party suggests that the opportunity should be taken in presenting this report to the FAO Conference at Copenhagen to call upon all European countries represented there, including UNRRA countries and the Control Authorities for Germany, unless they have already done so, to get in touch with the EECE with a view to submitting detailed estimates of their potential imports of fish. The EECE might then be able to arrange a conference of exporting and importing countries at which means of overcoming the financial obstacles might be discussed.

Report of United Nations Relief and Rehabilitation Administration

BRIEF STATEMENT ON FISHERIES WORK BY UNRRA SUBMITTED TO COMMITTEE IV ON FISHERIES BY THE CHIEF OF THE AGRICULTURAL REHABILITATION DIVISION IN UNRRA*

Approximately 373 million dollars have been expended in the agricultural and fisheries rehabilitation work. This was spent as follows:

	Million ¹		Million
Farm machinery	74	Veterinary supplies and pesticides	16
Seed	64	Food processing and storage	14
Livestock	54	Flood control and irrigation	14
Fertilizers	49	Repairs and repair shops	19
Fishing boats and gears	44	Miscellaneous, harness, bags, etc.	25

In the work of rehabilitating fisheries in the devastated countries, 44 million dollars has been spent for boats and fishing gear and supplies. A total of 168 equipped boats of over 55 feet are being procured for China, Greece, Yugoslavia, and Poland. Additional equipment for use in existing boats and repair materials and shops for making repairs and building new boats are included in the program.



Twine for seines and nets has been extremely difficult to get. UNRRA has had to furnish mills with raw materials and to share the production of the mills with other areas in order to get any appreciable quantity of these vital supplies. These contracts are made for delivery over a much longer period than we would like. Contracts placed in 1944 in anticipation of the need are only now being delivered.

Requests for equipment for research work affecting fisheries have been received. The expansion of research work in this field belongs to a permanent agency rather than to UNRRA.

In addition to operational equipment, UNRRA has taken some steps to provide refrigerated storage and equipment for canning and processing fish. Materials in these fields were difficult to buy because of short supply. Much specialized gear was formerly manufactured almost exclusively by the ex-enemy countries, and production in these areas has not been restored.

Technical help in restoring fisheries has been earnestly sought by each country, but qualified persons are hard to find. Approximately 10 specialists are now working in UNRRA countries.

UNRRA is training engineers to operate the larger fishing boats. These boats are equipped with special gear, and we have 70 to 80 fishermen familiar with the use of the gear training local crews in its management and care.

*By E. R. Henson, Sept. 10-12, 1946.

The shortage of technicians in various aspects of fishing makes progress very slow. The countries demand a greater proportional number of technicians in this field than in any other in the program.

UNRRA had purchased and shipped to the war-torn countries 34 million dollars' worth of fish, fresh, canned, dried, etc.--by June of this year. Figures on the remainder of the program as it concerns these products are not now available. In addition, some vitamin extracts and other products have been of great value. The primary limitation on the quantity of fish in recent months has been the shortage of UNRRA funds and the lack of facilities for handling.

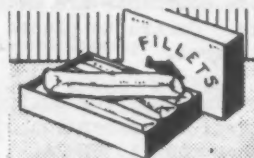


Report to Nutrition Committee

The general lack of knowledge of the nutritive value of fishery products was deplored by the Fisheries Committee. As a result, a delegation discussed the matter with the Chairman of the Nutrition Committee and presented the following statement:

"It is the impression of the Fisheries Committee that the importance of fish and fishery products as food, and the possibilities these products offer are not always fully appreciated and the Fisheries Committee, therefore, wishes to stress the importance of fish as food.

"Fish is an excellent source of animal protein. It is also rich in minerals and vitamins; especially important is the high vitamin D content of fat fishes. The fact that this excellent food is the cheapest source of animal protein was pointed out in the report from the Fisheries Committee at Quebec last year.(2)



"The world's yearly catch of fish was, before the last war, calculated at 15 million tons. This corresponds to about 7 million tons of edible fish flesh, representing a fair part of the world's production of animal foods. According to the figures given in FAO's World Food Survey (14), the consumption of meat, fish, and eggs altogether in United States, United Kingdom, China, India, Southeastern Europe and South America was about 29 million tons. The edible portion of the fish catch represents 25 percent of this amount. Further, the development of the hitherto unused fishery resources that exist in large areas of the world may contribute to increase this proportion very considerably.

"A very large proportion of the catch has always been used for industrial purposes in the form of fish oil and fish meal. It is possible to use more fish as food since the improvements in processing methods, especially canning and frozen; makes it possible to preserve more fish for human consumption. New products, such as artificially dried fish and fish flour may also help to give a wide distribution of fish protein at a comparatively low price.

"Among the excellent data given in the World Food Survey, fish is combined with meat. It is the opinion of the Fisheries Committee that separate figures for fish should be given in later surveys. The World Food Survey shows that there is a great shortage of animal protein and it is stated that it may take seven to ten years before the number of cattle in Europe returns to prewar levels. It seems important then to investigate how better supply and distribution of fishery products can diminish this shortage.

"In addition to this, FAO's World Food Appraisal for 1946-47 (15) gives the information that UNRRA has relinquished a large part of its allocations and other proposed purchases of fish, and it is assumed that the effect may be to remove an important stimulus to the catching of fish.

"As a whole, we are faced with the possible surplus of fish in spite of the fact that the world is in urgent need of food. It is, therefore, of great importance that FAO help to solve the problem of better utilization of fish and fishery products to eliminate some of the world's shortage of animal protein.

"The Fisheries Committee wishes to call the attention of FAO's Nutrition Division to the fact that fish is a cheap source of animal protein which is rich in certain vitamins, and which already is, or could be made, acceptable in quantities far greater than the amount of fishery products used for human consumption at the present time. The Fisheries Committee is convinced that great benefit would derive from close cooperation between FAO's Fisheries Division and Nutrition Division. The suggestion is made that the Nutrition Division call on an expert, appointed by FAO's Fisheries Division, to appear before the next meeting of the Standing Advisory Committee on Nutrition."

It is expected that favorable action will be taken with respect to the final suggestion at the next meeting of the Standing Advisory Committee on Nutrition.

Report of the Committee on Economics and Statistics

In approving the report (16) of the Committee on Economics and Statistics the Copenhagen Conference confirmed the recommendation of the Standing Advisory Committee that a Census of Fisheries be conducted concurrently with the 1950 World Census of Agriculture. The report further recommended that in censuses, current reports, or sample surveys developed by FAO, full consideration be given to data on wages and working conditions of fishery workers, movements of fisheries costs and prices, income distribution of fishermen, and other information required to reflect the levels of living of families securing their support from the fisheries.

Standing Advisory Committee on Fisheries

Members of the Standing Advisory Committee on Fisheries for FAO were nominated in July and the first meeting set for August 23 in Bergen, Norway. The membership of the Committee was as follows:

Mr. A. W. Anderson,
Chief, Division of Commercial Fisheries,
Fish and Wildlife Service,
U. S. Department of the Interior,
Washington 25, D. C.

Mr. Olav Nottevarp,
Director, Norwegian Fisheries Research
Station,
Bergen, Norway.

Mr. B. Dinesen,
Head of Section,
Department of Fisheries,
Copenhagen, Denmark.

Dr. Bains Prashad,
Fisheries Development Adviser to the Govern-
ment of India, Dept. of Agriculture,
New Delhi, India.

Mr. P.D.H. Dunn,
Fisheries Secretary,
Department of Agriculture and Fisheries,
London, England.

Mr. Klaus Sunnanen,
Secretary, Norwegian Fishermen's Association,
Trondheim, Norway.

Mr. Raymond Gushue,*
Chairman, Newfoundland Fisheries Board,
St. John's, Newfoundland.

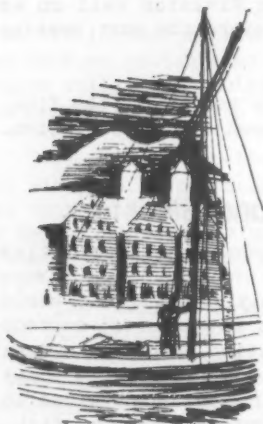
The Honorable Thor Thors,*
Minister of Iceland,
Washington, D. C.

Dr. A.W.H. Needler,
Director, Atlantic Biological Station,
St. Andrews, N. B., Canada.

(*Unable to be present.)

Dr. D. B. Finn, Director of FAO's Fisheries Division, acted as Chairman at the Bergen meeting and H. C. Winsor, Personal Assistant to the Director, served as Secretary.

The agenda presented to the Committee for its consideration included the recommendations of the Ad Hoc Committees, the relation of FAO to other international governmental and non-governmental bodies, international machinery for food and agriculture, representation on Standing Advisory Committees, staffing of the Fisheries Division, and other business.



BERGEN, NORWAY

The Committee's report (13) to the Director-General embodied its recommendations on these matters and also included references to surpluses in the fisheries as compared to agriculture, and to the fisheries phases of the recommendations in the Report of the Special Meeting on Urgent Food Problems. Committee meetings in Bergen were completed shortly before the opening date of the FAO Conference in Copenhagen. During the meeting period, the extensive hospitality of the Norwegian fishery interests--both governmental and industrial--provided excellent opportunities to discuss with their technical personnel current and future developments in Norwegian fisheries, and to visit processing plants and fishing ports.

Practically all of these items were again discussed by the technical Fisheries Committee set up at the later Copenhagen Conference and are included in its report. (11)

Standing Advisory Committee on Statistics

As a result of its meeting near The Hague prior to the Copenhagen Conference, the Standing Advisory Committee on Statistics submitted a report (17) to the Director-General on international statistical matters. This report urged that a 1950 World Census of Fisheries be undertaken concurrently with the Census of Agriculture and the Census of Forestry, and that in those countries in which

farmers also engaged in commercial fisheries, some data on these activities should be secured along with the agricultural data. It also recommended that FAO consider issuing a Yearbook with sections including data on Agriculture, Food, Fisheries, and Forestry. In the Fisheries section, it stated chief attention should be given to: Fish landings, Stocks, Processing, Prices, and Trade, but recommended that further development of the fisheries specifications required consultation with experts in that field.



STATISTICAL AGENT

Standing Advisory Committee on Economics and Marketing

The Standing Advisory Committee on Economics and Marketing for FAO met prior to the Copenhagen Conference near The Hague. Its report (10) to the Director-General was largely concerned with an exhaustive examination of the World Food Board Proposals. Specific references to the fisheries were few. In discussing commodities suitable for buffer stock operations under the Proposals, it was stated that "Some foodstuffs, though important in international trade, are perishable to a greater or lesser degree, notably meats, dairy products, and fish, and are suited to buffer stock operations only in limited measure."

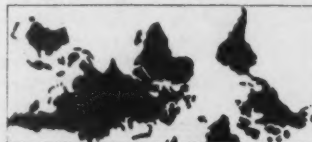
First Annual Report of Director-General to FAO

The first Annual Report of the Director-General to the FAO Conference (12) covered the first 8½ months of FAO's existence from October 16, 1945 through June 30, 1946. As presented at Copenhagen, it consisted of a Synopsis of the more important aspects of FAO's work, a full Report, a brief Summary of the work, and a number of Appendices. References to specific fisheries matters were not numerous. In the discussion (page 11) of the preparation of a World Food Survey, it was stated that "preparing a fisheries balance sheet proved to be a particularly difficult undertaking because of the lack of adequate data. A good deal of material was collected nevertheless, and a report (14) is being prepared for the Copenhagen Conference." Similarly, under the Summary of the Year's Work (page 27) it was indicated that a fisheries survey was under way and would be used as a basis for recommendations at the Copenhagen Conference. The Ad Hoc Committee on Fisheries, which met on several occasions in Washington, is listed on page 31 in Appendix I of the Report.



World Food Appraisal for 1946-47

The World Food Appraisal for 1946-47 (15) issued by FAO on September 2 concluded that "despite the recent improvement in crop prospects in certain countries, there will remain during that year a serious gap between prospective export supplies and import needs of bread and other grains, as well as continuing shortages of fats, meat, sugar, and other essential foods." In looking beyond 1946-47 it stated that "there are signs that the world food balance may continue tight for some time, since import demand will be larger than prewar and export supplies of many foods, notably livestock products, can only expand slowly."

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Under the heading "Available Export Supplies," the situations with regard to various commodities were described. The statement on fish follows:

"(b) Fish. The fish situation remains substantially the same as outlined at the Special Meeting on Urgent Food Problems in May 1946. (4,5) While supplies are greater than in 1945-46 they are substantially below prewar. Large quantities of fresh and frozen fish can be made available from such countries as Iceland, United Kingdom, Norway, Denmark, The Netherlands, and Sweden; but owing to its high degree of perishability and the lack of adequate refrigerated transport and warehouse facilities, distribution is necessarily limited. However, some quantities are being made available for distribution in the occupied zones of Germany and Austria, from Danish and Swedish supplies. Although there are no current consumption and production data for the important fish-eating countries of Europe and the Far East, it appears that where fishing equipment is reasonably sufficient, as in most of the countries of north-west Europe, the catches are already back to prewar levels.

"The supply position of salted fish (cod and related species) has improved considerably in recent months because of the reappearance of Denmark and the Faroe Islands as major suppliers. Newfoundland, Canada, and Norway are expected to maintain production at least equal to that of the immediate prewar years; but France, normally an exporter of some 30 million pounds annually, is now a claimant to the extent of some 10 million pounds annually; and Iceland which exported 70 to 80 million pounds is not expected to have an exportable surplus of more than 10 million pounds. This reduction in the Icelandic supply is due to a diversion to fresh and frozen fish.

"The total estimated supply of canned fish in 1946-47 is about 75 million pounds less than in 1945-46. This reduction is due to the heavy inroads made on carryover stocks. Because of a sharp reduction in military requirements, exportable supplies available against civilian requirements remain approximately the same as last year. This exportable supply is about 150 million pounds less than prewar, which is accounted for by the absence of an exportable surplus from Japan and the shortage of tins and other ancillary materials in such countries as Norway, Spain, and Portugal.

"Because of shortage of funds UNRRA has recently relinquished a large part of its allocations and other proposed purchases of fish, including 60 million pounds canned fish from United States, 30 million pounds Canadian canned fish, 3 million pounds (dry salt basis) of salted fish and 12 million pounds of salted (pickled) herring. The effects of this and of the general termination of UNRRA activities are:

- (1) to accentuate a distribution of fish supplies on a basis of buying power rather than need, and
- (2) to remove an important stimulus to the catching of fish.

More boats would put to sea and more fish would be caught if there were forward contracts at reasonable prices. Fish could considerably augment the supply of animal protein among needful peoples. Unless food-deficit countries can obtain the necessary foreign exchange, however, there is a real danger that a part of the 1946-47 catch will be wasted for lack of a market."

The world production of visible fats and oils available for consumption was expected to be about 5 percent greater than in 1946, but still 15 percent below the immediate prewar average. Whale oil production in 1947 was expected to be larger due to the fitting out of additional factory ships for expeditions to the Antarctic. The 1947 production was forecast as possibly over 200,000 metric tons as compared to a total production of about 145,000 metric tons in 1946. The predicted 1947 figure is, however, less than half the prewar production.



WHALE FACTORY SHIP

World Food Survey

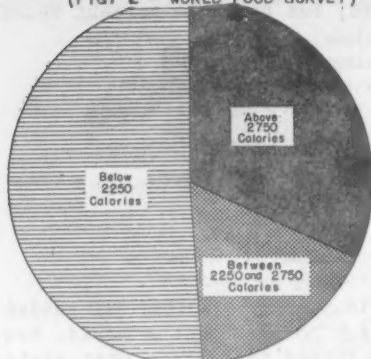
In order to develop future world food and agricultural policies, FAO needed to know the actual food consumption of the different peoples of the world, how consumption compared with needs, where serious shortages prevailed, what goals could be set to remedy these shortages in a reasonable time, and what additional quantities of food were required to reach the goals. FAO's published report (14)--World Food Survey--gives the results of an attempt to answer these questions. The data cover 70 countries with about 90 percent of the world's population. Although the figures are admittedly provisional and incomplete, they present the most accurate picture of the prewar situation yet available--and the fact that "about half of the world's population was subsisting before the war at a level of food consumption which was not high enough to maintain normal health, allow for normal growth of children, or furnish enough energy for normal work."

The report describes the nutritional targets set up in order to provide the world with an improved diet, and notes that the criteria established by a preliminary meeting of nutrition experts included, among other suggestions, a recommendation that "a per caput calorie intake of 2550-2650 should be taken as the minimum level to which intake should be raised in the low-calorie countries, and the quantities of additional foods required should be estimated on this basis."

A recommendation relating to fish stated that "not less than 100 calories per caput daily, and preferably 150-200," should be derived from "meat (including poultry), fish, and eggs." It was further stated that "Fish can replace meat in countries in which the latter cannot be easily produced in quantity and where fish supplies can be readily increased." (The implication in this statement that meat is preferable to fish, although undoubtedly unintentional, is typical of the inadequate consideration frequently given the fisheries in FAO reports and surveys. The Fisheries Committee at Copenhagen discussed this problem at some length, eventually incorporating in its report a recommendation that the coordination of fisheries statistics be the future responsibility of the Fisheries Division of FAO in collaboration with the Statistical Division. The Committee also furnished a statement on the nutritional importance of fishery products to the Nutrition Committee, and suggested that at the next meeting of the Standing Advisory Committee on Nutrition, a fisheries expert from FAO's Fisheries Division be requested to appear.)

Table 5 from the report indicates the increases in the supplies of various commodities that will be required by 1960 if the proposed targets for the 70 countries are met, as well as "the opportunities ahead for food producers if the nations set out to improve nutrition on a world scale."

(FIG. 2 - WORLD FOOD SURVEY)



RELATIVE SIZE OF WORLD POPULATIONS
AT DIFFERENT CALORIE LEVELS

World Food Needs in 1960
(Table 5 - World Food Survey)

Commodity	Percent*
Cereals	21
Roots and tubers	27
Sugar	12
Fats	34
Pulses	80
Fruits and vegetables	163
Meat	46
Milk	100

*Approximate percent increase over prewar supplies required to meet targets, assuming a 25 percent increase in world population.

FAO Mission for Greece



The preliminary summary of findings and recommendations (18) submitted by the FAO Mission for Greece was approved by the Copenhagen Conference. Inasmuch as the report represents the first attempt by FAO to supply technical assistance to a member country requesting aid the recommendations with respect to the fisheries of Greece follow:

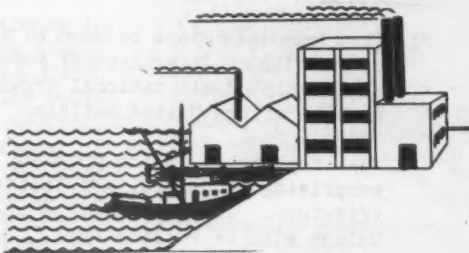
- "39. Fisheries Administration. The Mission recommends that the Directorate of Fisheries of the Government of Greece be reorganized on a satisfactory functional basis, and that it become a Bureau of Fisheries in the Ministry of Merchant Marine. It should be charged with all administrative duties relating to the regulation and encouragement of Greek fisheries. It is recommended that administrative supervision of research in fisheries be assumed by the Ministry of Merchant Marine. The Mission suggests that the Food and Agriculture Organization of the United Nations be asked to nominate to the Government of Greece a thoroughly trained and competent fisheries expert for a period of at least three years to organize the bureau and to develop a suitable staff and program. It is further recommended that the laws and regulations governing fisheries be revised promptly in line with modern knowledge and the best usage. Enforcement should be in the hands of men who are competent, well trained, and well equipped.
- "40. Research in Fisheries. The Mission recommends that as soon as practicable provision be made by the Greek Government for support of research basic to fisheries. It is recommended that a hydrobiological research institute be established under the administrative supervision of the Ministry of Merchant Marine. The Institute should be affiliated with the University of Athens so that the use of its facilities may be available to students of the University who are taking training to fit them for fisheries research or service.
- "41. Education in Fisheries. The Mission recommends that encouragement be given to the development of suitable facilities in the University of Athens, under the administrative supervision of the Ministry of Education, for a curriculum planned to train students for research and service in the field of fisheries. This will probably require the

establishment and adequate support of one or more appropriate chairs in the University. The affiliation of the hydrobiological research institute (under the Ministry of Merchant Marine) should be useful as a medium for advanced training and for research.

- "42. **Vocational Training in Fisheries.** The Mission recommends that adequate provision be made for the adult education and out-of-school youth education much needed by Greek fishermen and boys, and that the proposed Bureau of Fisheries of the Ministry of Merchant Marine be charged with appropriate development and assume administrative supervision of this work. The Mission also recommends that vocational work in fisheries be included in the program of the village schools and secondary schools, in appropriate localities.

International Federation of Commercial Fisheries

During the FAO Conference at Copenhagen, certain provisions in the FAO charter providing for recognition of international non-governmental organizations led to an unofficial meeting of fishery representatives from twelve countries to consider such an organization for fisheries. The establishment and recognition of the International Federation of Agricultural Producers* also was a contributing factor. The group agreed that creation of an International Federation of Commercial Fisheries should be studied, and named a committee consisting of Klaus Sunnanaa, Secretary-General of the Norwegian Fishermen's Association, D. J. van Dijk, Chairman and Director of the Marketing Board of Fishery Products in the Netherlands, and Clive Planta, Secretary-Manager of the Fisheries Council of Canada, to look further into the matter. This Committee later reported as follows:



"Reasons for an International Organization of Commercial Fisheries:

- "1. Provision is made within the terms of reference of FAO for recognition of and cooperation with international non-governmental organizations.
- "2. During the past few months, an International Federation of Agricultural Producers has been created and attained recognition by FAO.
- "3. Dating from the Hot Springs Conference and up to the present time, Fisheries have been over-shadowed in the deliberations of FAO by the emphasis

*The decision to form I.F.A.P. was taken at a Conference in London in May 1946, to which all United Nations countries were invited to send representatives of existing National General Farm Organizations and observers, preferably bona fide farmers, where no such national organization was in being. At that Conference, a provisional council was set up consisting of 13 countries out of the 31 countries represented, and a draft constitution was accepted. The permanent constitution will be finally approved at the first official conference of I.F.A.P. to be held in May 1947, probably in the Netherlands. The Conference in May 1946 issued a comprehensive report of its deliberations which is now available, and can be supplied on application from temporary administrative offices at 45 Bedford Square, London, W.C. 1, England.

placed on Agricultural problems. If Fisheries is to overcome this handicap it is essential to have an International non-governmental organization comprising membership of the Nations participating in FAO through which to voice the views of the Commercial Fisheries with respect to production, conservation, distribution, nutrition and all of the aspects of world food problems as outlined in the objects of FAO.

- "4. Fisheries resources are international, therefore, the need for creating a central world federation of the commercial fisheries as a means of facilitating the work of the Fisheries Division of FAO and to gain for the industry the status of observer to FAO.

"The Committee therefore recommends--that the respective members of the Fisheries Committee of FAO assume the responsibility for transmitting the following proposal to the appropriate organizations of the fisheries industry of their countries:

"Proposal--

- "1. That immediate steps be taken to assess the desirability and practicability of creating an International Federation of Commercial Fisheries comprising membership of all national organizations of producer countries which are members of the United Nations.
- "2. That membership in the proposed Federation might consist of organizations comprising producers, manufacturers and processors, and wholesale distributors. It is considered that fishermen who are organized in Trade Unions will be related to I.L.O.* and therefore, to avoid duplication, such national organizations of fishermen should not have membership in the proposed Federation.
- "3. The Federation shall consist of a Board--General Assembly and the three Divisions mentioned above.
- "4. That Clive Planta, Secretary-Manager, Fisheries Council of Canada, be designated Secretary to carry on correspondence and to coordinate the data to be provided by members of the Fisheries Committee in regard to existing organizations of Commercial Fisheries in all participating countries.
- "5. That a Standing Committee be appointed."

The proposals of the committee were accepted by the original group at a later meeting and the committee requested to continue as a Standing Committee. Mr. Planta, as Secretary, is now obtaining and coordinating data concerning national fisheries organizations in various countries. Upon completion of this task, a tentative constitution will be drafted and submitted to the eligible national organizations. After consideration of the draft, they will be requested to have representatives meet to discuss the desirability of establishing an International Federation of Commercial Fisheries.

*International Labor Organization.

International Conference of Salt Fish Exporters

At one of the meetings of the FAO Fisheries Committee in Copenhagen mention was made by the Norwegian Director of Fisheries of a forthcoming meeting of representatives of certain salt fish-producing nations. Inasmuch as this development is of interest as a means of meeting international problems in one phase of fisheries trade a portion of Mr. Brynjelsen's remarks follow:

"In connection with the question of the place of fisheries in a World Food Board, I should like to give the members of the Fisheries Committee information regarding the coming salt fish and klipfish meeting in Bergen in late September.

"In 1939, there was a trade conference in London, in which representatives of trade organizations in Canada, Denmark, Iceland, Newfoundland, United Kingdom, and Norway took part. Each country's government had an observer at the meeting. The conference was held under the chairmanship of Mr. Davies, the Trade Commissioner for Newfoundland in the United Kingdom, and the purpose was to try to find a form of cooperation between the countries concerned with the export of salt fish and klipfish.

"Some recommendations were made at this meeting but because of the war, could not be followed through.

"At the time of the Washington meeting of FAO in May this year, representatives from Iceland, Canada, Newfoundland, and Norway discussed the question of cooperation between the salt fish-producing countries, and they decided to recommend that the discussions which began in London in 1939 be renewed. They also recommended that it should be a trade conference and that Norway should invite the other countries to a conference in September.

"Following upon this recommendation, the Norwegian Director of Fisheries has invited Canada, Denmark, France, Iceland, Newfoundland, and United Kingdom to send delegates from their trade organizations, and observers from the government to a conference in Bergen the 23rd of September. We also have invited FAO to send observers to the meeting."

Full details on the meeting have not been released. However, Clive Planta, Secretary-Manager of the Fisheries Council of Canada, and a Canadian representative at the meeting, has reported as follows to the Fisheries Council in a recent Bulletin: (19)

"The International Conference of Salt Fish Exporters, which convened at Bergen, Norway, September 23, at the invitation of Mr. O. Brynjelsen, Director of Fisheries for Norway, was attended by representatives of exporters from Canada, Denmark, Faroe Islands, France, Newfoundland, Iceland, Great Britain, and Norway. Govern-



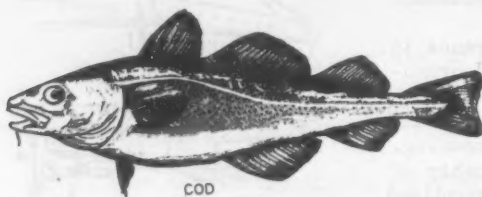
FAO CONFERENCE HEADQUARTERS--
COPENHAGEN

ment observers from each of the above countries, and an observer representing FAO, also attended the meeting.

"The Conference was called for the purpose of resuming discussions held in London in 1939, the recommendations of which did not come to fruition owing to the intervention of war. The objectives set forth in the recommendations made by the London Conference were reviewed, and it was decided to proceed with plans to establish a central office of Salt Fish Exporters at the earliest possible date. The functions of the proposed office, which it was agreed should be located in London, will be to assemble and coordinate statistics covering production, stocks, imports and exports of salt fish. The office would also assemble and coordinate information generally concerning the industry, and facilitate cooperation between the exports of the various countries concerned."

Until further information is available concerning the organization and program of the Salt Fish Exporters, it is difficult to assess its probable effect upon the future of the salt fish trade. Its future relationship to FAO is not yet clear--the degree of cooperation to be expected, for example, and whether or not it will seek recognition by FAO as an international organization with the privilege of sending an observer to FAO conferences. Likewise, its position relative to the proposed International Trade Organization or ITO is of interest

as it is conceivable that some production and marketing measures under consideration by the Salt Fish Exporters might be in conflict with the expressed intentions of ITO. (13) Undoubtedly, activities of the Salt Fish Exporters should be closely observed as they may set a pattern for similar developments in other international fisheries fields where surplus production and marketing difficulties may soon be expected.



ILLUSTRATIONS

MOST OF THE SKETCHES WERE DRAWN BY MISS KATHERINE HOWE AND MISS SHIRLEY BRIGGS OF THE U. S. FISH AND WILDLIFE SERVICE. THE REMAINDER, WHERE NOT OTHERWISE INDICATED, ARE FROM BOOKLETS AND MATERIAL SUPPLIED BY THE DANISH FAO CONFERENCE COMMITTEE, INCLUDING GUIDE BOOK (29), THIS COPENHAGEN (30), AND FROM NORWEGIAN SOURCES SUCH AS FISKETS GANG (22,23) AND VELKOMMEN TIL BERGEN (31).

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THE FISHERIES OUTLOOK IN SOME EUROPEAN COUNTRIES

Introduction

Attending the first meeting of the Standing Advisory Committee for Fisheries of FAO at Bergen, Norway, and later participating in the FAO Conference at Copenhagen, Denmark, provided excellent opportunities to visit and discuss fisheries activities in these two countries. Equally important, the presence of numerous technical government and trade representatives--as fishery advisers on more than a score of national FAO delegations at Copenhagen--permitted an extensive and extremely worthwhile interchange of fisheries knowledge relating to national plans and progress as well as international problems. The following brief observations may be of interest with respect to the current status of the fisheries in some of the northern European countries, and also as an indication of national and international trends.



Norway

Norway's over-all production of fish was estimated to be about 1.6 billion pounds in 1945 as compared with an average of 2.2 billion pounds in the immediate prewar years. The 1946 production was expected to be about 1.9 billion pounds. Consumption of fish in Norway is very high. In prewar years, it has been reported as about 143 pounds per capita annually in Bergen, about 99 pounds in Trondheim, and about 88 pounds for the country as a whole.⁽²⁰⁾ Such a large consumption can well be believed after sampling the excellent fish provided. The quality was of the highest--appreciable quantities are landed and sold alive--and the cooking was superb.

A separate Ministry of Fisheries had recently been established in Norway. Previously, fisheries activities had been under a Ministry of Commerce.

Two fisheries questions with international aspects were reported in the Norwegian newspapers as having serious effects on the national economy. The first was concerned with the permission granted Japan by General MacArthur to equip an expedition for Antarctic whaling this season. Norway was represented as strongly opposed to such an expedition on economic and legal grounds. The second dealt with the increasing numbers of German trawlers permitted by the British control commission to fish in the area between the Norwegian Coast and Bear Island. Although the Norwegians recognized that the British control commission's decision was reached on the basis of affording the Germans an opportunity to procure their own food, Norway's viewpoint was that the German trawler fishery off the Norwegian Coast should be forbidden or limited to an absolute minimum. It was indicated that the peace treaty with Germany would eventually settle the matter, but it was hoped that an earlier adjustment could be reached.

The refusal of the Norwegian Government to permit its nationals to be employed on whaling expeditions fitted out by the Netherlands was, at the moment, of immediate interest to the two countries involved. It presumably would be discussed and settled at the International Whaling Conference scheduled for late November in Washington.

Practically all fishing facilities in Finnmark, a district in northern Norway, were destroyed by the Germans during their retreat from this area in 1944. Plans were being developed to reestablish the fishing ports--at more desirable locations, if advisable--and to install adequate modern filleting and freezing equipment as required. The tentative program would require a number of years for completion. The current production of fish in northern Norway was said to be limited by lack of the normal number of shore help rather than fishermen because the former were engaged at higher wages on construction work. Eight or ten temporary freezing plants were in use in northern Norway. Later, it was planned to establish two or three permanent ones.

Plans were currently under way to send north to Finnmark an 8,000-ton factory vessel equipped to fillet, package, and freeze fish. Birdseye-type freezers were being installed to increase its capacity. The vessel has quarters for 150 men in addition to the crew and is designed to store 4,000 metric tons of frozen packaged fillets. The monthly production was estimated at 500 to 600 tons. Facilities were also provided for salting fish and handling the livers.

A cannery visited in the neighborhood of Bergen was packing brisling and small herring (sild) in an efficient and sanitary operation. Aluminum cans were used as containers and refined herring oil was added in place of the olive oil used in prewar years. The continued use of aluminum cans probably would depend to a large extent upon the future availability and price of tinsplate. A high grade of aluminum was required for the cans and careful handling was needed throughout the packing process. The added herring oil, although possessing a different flavor than olive oil, had met a favorable reception. Its future was reported by several packers to depend upon the attitude of buyers when olive oil again became readily available.

A filleting machine of German design was observed in Trondheim. It was one of a number installed in Norway during the war by the Germans. A fuller description of the machine and its operations may be obtained by requesting Fishery Leaflet No. 206, from the Fish and Wildlife Service, Department of the Interior, Chicago 54, Ill. Reports were received also of a Swedish filleting machine which was about to undergo tests but no details were available.

Numerous questions were asked in Norway concerning the ability of the United States market to absorb substantial imports of frozen packaged Norwegian fillets. In one instance, the volume mentioned was double our total prewar imports. Such instances were utilized as opportunities to acquaint the exporters fully with the current situation in this country:

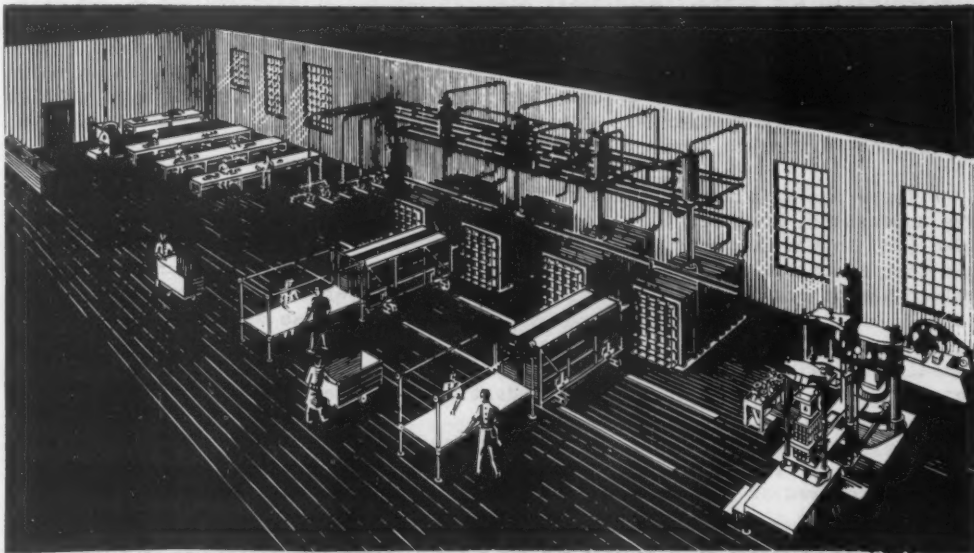
1. The more than quadrupled imports since the beginning of the war from Canada, Newfoundland, and Iceland.
2. The concern of the New England industry over imports and the resultant Congressional hearings.
3. The limits--at that time or earlier--on catches of cod, whiting, mackerel, rosefish, and Pacific Coast rockfish.
4. The record cold-storage holdings.
5. The eventual return of meat products in abundant supply.
6. A relatively low per capita consumption of fishery products.

7. The increased dissemination of fisheries knowledge and the improvement in transportation, distribution, and storage facilities which would be required to raise the per capita consumption substantially.

The press has recently reported that an export association to handle foreign trade in frozen fish and frozen fillets was being formed. Its main purpose was reported to be the control of exports, but not as a monopoly with the sole right of export. It was expected to stress cooperative advertising, quality control and the extension of transporting and distributing systems. The association also would encourage competition with respect to quality but discourage unnecessary and harmful price competition.

A commercial process operating successfully on herring to produce meal and oil ran the raw herring through a dryer first and later through a high pressure press. Operations were most satisfactory with lean herring.

A newly equipped factory in Aalesund was completing trial runs yielding a dried pressed fish product known as "pressfish" by the Danish manufacturers of



STANDARD DEHYDRATION AND PRESSING PLANT FOR THE PRODUCTION OF PRESSFISH FROM COD, SAITHE, HADDOCK, ETC. (NORWEGIAN COAST) (21)

the main equipment.(21) Fish fillets of cod, pollock, etc., are dehydrated under vacuum in large batch retorts and later compressed hydraulically in two states into large blocks 400 x 400 x 250 mm. or about 16 x 16 x 10 inches. These blocks were later cut into consumer sizes measuring 125 x 65 x 25 mm. or about 5 x 2½ x 1 inches weighing 250 grams or approximately 9 ounces and packaged. The finished product was very dense and, judging by a sample which has been retained at normal room temperatures for several months, has changed little during that period. A prolonged period of soaking in freshwater is required before the product is cooked. "Pressfish" presumably would compete with dry salted fish in the latter's markets and, conceivably, might develop special markets in those areas where a concentrated protein food is desired and storage conditions are adverse. The capacity of a

standard "pressfish" plant is stated as about 4,000 kilos--8,800 pounds--per 24-hour day which is reported to correspond to 30 to 40 metric tons--66,000 to 88,000 pounds--of raw fish.

Cooperative associations of fishermen play an important part in the fisheries of Norway. A large modern herring meal and herring oil plant visited near Bergen was operated by an association of herring fishermen. It was equipped with Norwegian machinery and operated usually only about 40 days each year. The fact that its equipment and methods of operation permitted it to pay a higher price to the fishermen than that agreed upon between the fishermen and other privately operated plants was a matter of some concern in the industry. The fishermen's group was planning, in addition, the construction of three more reduction plants in other areas. The operations of each of these presumably would indicate the prices that could be paid for herring by modern, well operated plants in other districts. Other interests of fishermen's cooperatives included operation of their own boats and shore installations and ownership of a cod-liver oil plant.

The trawler question in Norway is unsettled and the subject of considerable discussion in the press. Apparently many are opposed to extended use of the otter trawl in any form. Others appear to favor small trawlers in certain areas while some desire large trawlers and all out competition with foreign vessels. In a recent interesting article on foreign trawling and the cod resources in northern waters in Fiskets Gang (22) a Norwegian biologist concludes that Norway's problem is not necessarily whether Norwegians shall or shall not trawl but must they trawl or can they afford to remain aloof.

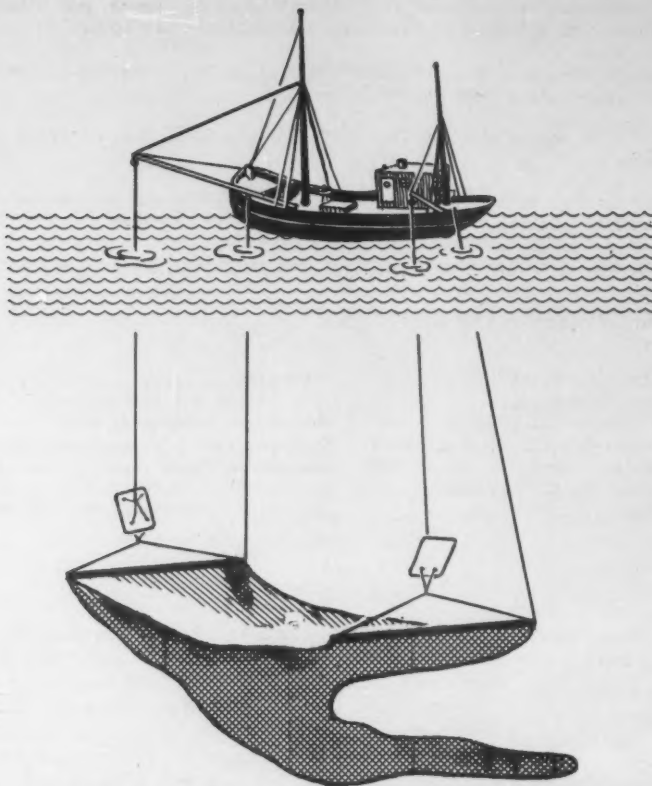
There was little opportunity to observe Norwegian methods of fishing. It was understood, however, that experiments originally begun in northern Norway in 1942 (23) to develop methods for taking runs of cod with various types of nets had been successful enough to warrant further trials. The original tests involved use of one type of sink net equipped with otterboards and operated by one vessel, and of another type lifted by four vessels. (See sketch, p. 33) A pelagic paranzella net designed to fish at predetermined depths was towed by two vessels. A pelagic Danish seine equipped with floats which maintained it at the level at which the fish were most abundant also had been tried.

There was considerable interest expressed in a newly developed otter-trawl fishery for herring in the North Sea. British, Belgian, Netherlands, German, Danish, and Swedish vessels, have prosecuted this type of fishery, but it was a new venture for the Norwegians. The catches, landed in boxes, were later salted or frozen. The herring were said to be of fine quality but required careful handling.

A fishery for "haabrann" (Lamna cornubica), closely allied to our Atlantic Coast mackerel shark, was indicative of the wide use the Norwegians make of the fishery resources available to them. The large carcasses landed by the cutters engaged in the fishery were frequently observed on the Bergen docks being transhipped to markets in Germany, Belgium, and Italy.



A small shore-whaling plant near Bergen was visited. The station had facilities for handling the meat for edible use, and frozen whale meat advertisements were frequently noted. On the same trip, a herring purse seiner was examined. It turned out to be a Canadian purse seiner type. The orig-



EXPERIMENTAL SINK NET IN POSITION TO LIFT (23)

inal design, with the house forward, had proven unsatisfactory so it had been moved aft. The vessel fished with two small boats in the usual Norwegian manner, and was equipped with a depth finder to locate herring.

The interest in and stress on fisheries research was relatively noteworthy as compared with the United States, particularly with respect to the need for research and exploratory vessels. A specially designed vessel was under construction for these purposes. An interesting biological experiment required the creation of a new type of flatfish by crossing two of the present species. The new variety was developed to provide an infallible check in tests involving the migration of flatfish. Technological problems of importance included such items as the development of methods of freezing and holding herring fillets which would prevent the onset of rancidity. Means of holding large catches of brisling without loss until the canneries were able to utilize them also were being sought.

A school for fishermen offered a 38-week course, made up of subjects designed to:

1. Make the students more able in those phases of the fisheries in which they already had some experience.

2. Provide them with knowledge of other fish, other areas, and other methods in order to aid them in revising or expanding their work.
3. Furnish them with a better understanding of the fisheries so they could appreciate its future possibilities.
4. Give them an insight into the different phases of the economics of the fisheries.
5. Provide them with a good knowledge of navigation and the operation and repair of engines.
6. Give them a better education than that provided by the folk schools.

The course included the following subjects:

	Hours		Hours
Zoology, botany, and fisheries ...	192	Norwegian	128
Physics and chemistry	64	Calculation and accounting	160
Ocean or sea lessons	64	Sociology, economics, etc.	64
Additional lectures	10	Hygiene, etc.	42
Navigation, meteorology, etc.	440	English language	80
Seamanship, gear and fish lessons.	112	Additional lectures	12
Fish processing	64	Mechanics, machinery, and refrigeration.	64

Denmark

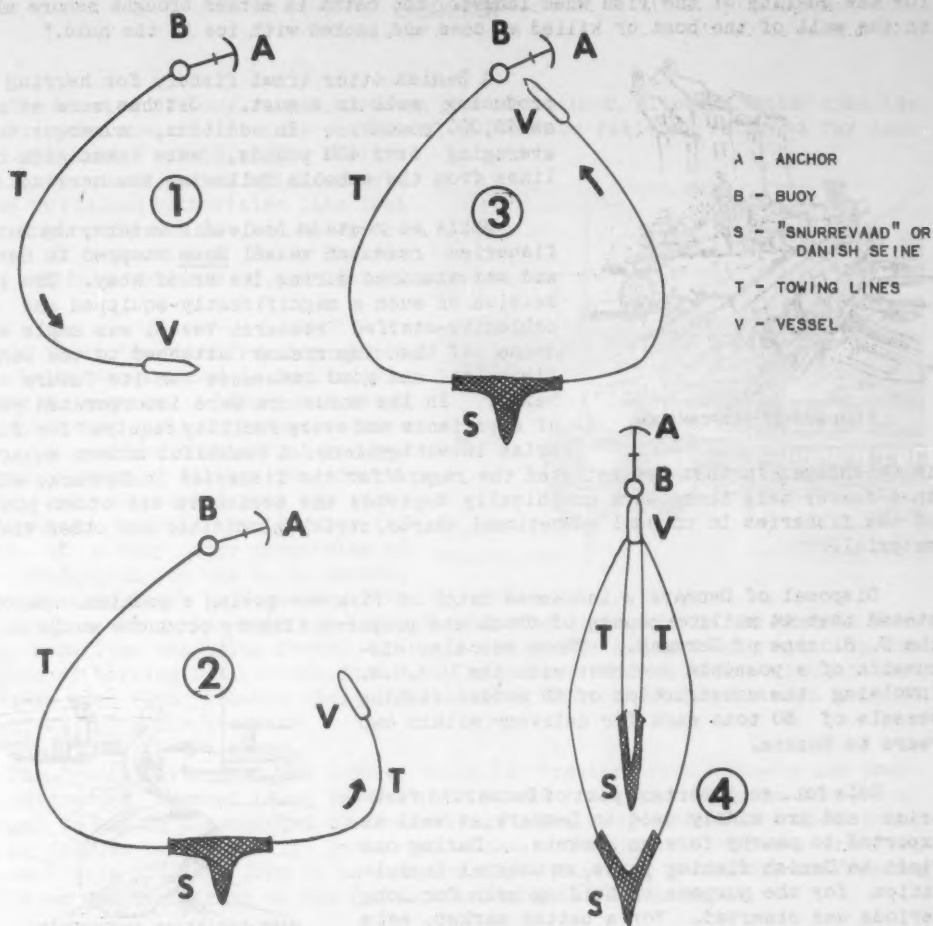
The Danish fisheries are now about double the prewar volume with flatfish, cod, herring, mackerel, and eels constituting the most important varieties. The greater catch is the result of a larger and more efficient fleet and increased stocks of fish on the adjacent grounds. As in Norway, the quality of the fish was outstanding both when landed and eaten as part of a meal. Much of the cod and plaice and all of the eels were marketed alive.



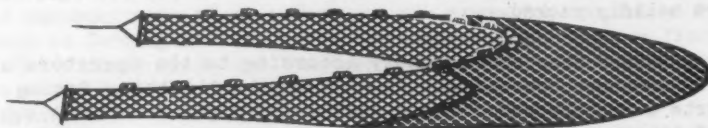
The Danish fisheries are well characterized in the following excerpt from a small booklet (24) prepared for FAO use:

"On the whole, it may be said that Danish fisheries are not based on mass catches, but first and foremost on the supply of first rate fish that is fresh, often alive. This fact has in the course of time given Danish fisheries an exceptional position among most of the North European countries, and has manifested itself in various ways including the comparatively high first-hand price that the Danish fisherman is paid for his catch.

"Another characteristic feature of Danish fisheries is the almost predominant position of the Danish seine (Snurrevaad) in the sea fisheries (see sketch, p.35). Danish fishermen have through many years specialized in, and adapted their vessels for, this way of fishing, which is so excellently suited for the bottom conditions that exist in the Danish waters. The Danish seine is an implement that gives a good catch and does not bruise the fish and, in addition, it is easy to work from the comparatively small and well steering cutters. The implement does not yield the big hauls as; e.g., the trawl, but the catch from the Danish seine comes unbruised and often alive on deck, which obviously is a factor of first rate importance



- 1 - VESSEL PROCEEDS ON COURSE FROM ANCHORED BUOY AND PAYS OUT TOWING LINE.
- 2 - VESSEL SETS GEAR AND HEADS TOWARD ANCHORED BUOY, CONTINUING TO PAY OUT TOWING LINE.
- 3 - VESSEL REACHES ANCHORED BUOY AND MAKES FAST.
- 4 - TWO STAGES DURING HAULING OF GEAR.



DIMENSIONS OF A TYPICAL DANISH SEINE FOR PLAICE ARE LISTED AS FOLLOWS:

WINGS: LENGTH - 14 FATHOMS
BAG: LENGTH - 6 FATHOMS

DEPTH: 70 TO 33 MESHES
CIRCUMFERENCE: 180 MESHES DECREASING
TO 70 MESHES

"SNURREVAAD" OR DANISH SEINE (25) (26)

for the quality of the fish when landed. The catch is either brought ashore alive in the well of the boat or killed at once and packed with ice in the hold."



FISH MARKET--COPENHAGEN

A Danish otter trawl fishery for herring was producing well in August. Catches were as much as 75,000 pounds. In addition, numerous tuna, averaging over 400 pounds, were taken with hand lines from the schools following the herring.

While en route to Icelandic waters, the Danish fisheries research vessel Dana stopped in Bergen and was examined during its brief stay. The possession of such a magnificently-equipped and excellently-staffed research vessel was ample evidence of the importance attached to the Danish fisheries and good insurance for its future well being. In its structure were incorporated years of experience and every facility required for fisheries investigations. A beautiful modern aquarium

in Copenhagen further demonstrated the regard for the fisheries in Denmark, while in a nearby hall there were graphically depicted the economics and other phases of the fisheries in unusual educational charts, striking exhibits, and other visual material.

Disposal of Denmark's increased catch of fish was posing a problem. Reports stated that 44 million pounds of fresh and prepared fishery products would go to the U. S. zone of Germany. There was also discussion of a possible contract with the U.S.S.R. involving the construction of 60 wooden fishing vessels of 80 tons each for delivery within two years to Russia.

Eels form an important part of Denmark's fisheries and are widely used in Denmark as well as exported to nearby foreign markets. During one visit to Danish fishing ports, an unusual installation for the purpose of holding eels for long periods was observed. For a better market, eels were held as long as five months in concrete tanks in a predetermined mixture of fresh and salt water. They were not fed and at the end of the holding period weighed practically as much as at the beginning. Shipment to market occurred in large steel tanks on motor trucks. Containers supplied oxygen to the tanks and there was little loss of eels if they were solidly packed.



HANS CHRISTIAN ANDERSEN'S
LITTLE MERMAID--COPENHAGEN

Nets and seines were in very short supply according to the operators of a fish net factory visited near Copenhagen. One of the difficulties facing the factory in its efforts to obtain new knitting machines to replace worn-out equipment was the lack of interest of the French manufacturer in supplying his machines unless the Danish purchaser could pay in U. S. dollars.

General

The herring fishery in the northern part of Iceland, although better than the previous year when the fishery was almost a complete failure, returned far less than the normal yield. The Pacific Coast type purse seiner which was obtained by Iceland authorities late last year apparently had not had an opportunity to demonstrate fully Pacific Coast methods because of the lack of fish.

At least four more freezing plants were being constructed in Iceland according to reports. There was every indication that Iceland planned to continue to produce substantial volumes of frozen packaged fillets for export. At the time, it appeared that the state of European markets would force the export of a very large proportion of this production to the U. S. market. It was learned late in November, however, that a delegation from the U.S.S.R. was then in Reykjavik and that an Icelandic committee was being formed to confer with the delegation regarding the purchase of herring oil, frozen fish and fresh iced fish. It was thought that the fresh iced fish probably would be delivered direct to the Russian zone of Germany by Icelandic trawlers.



Icelandic Fishing Vessels

The French Government has ordered about 140 trawlers from European and American shipyards. Some of these trawlers will have freezing equipment installed. Portugal is having constructed two very large trawlers, reportedly 2600 tons, each to include freezers. The Netherlands has under consideration a trawler-type well over 200 feet long to be equipped with filleting, packaging, and freezing facilities for fish taken on the far northern banks of the Atlantic.

With the rebuilding and return of its fishing fleet, the United Kingdom is facing fisheries problems. There already have been periods of surpluses and gluts. Several plans were under consideration for improvement in the quality of fares, the handling of landed fish, and the utilization of the catches. The 10 percent duty on imported fresh fish, suspended during the war, was being reinstituted to the accompaniment of protests from the exporting countries. A team of experts was sent to Germany and has reported rather fully on German fishery developments. (27) The fishery trade had been asked for suggestions and proposals with regard to the organization and program of the proposed International Trade Organization. The Preparatory Commission for ITO is now meeting in London to study a suggested charter. (28)

Compositor: Jean Zalevsky

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UNITED STATES
DEPARTMENT OF AGRICULTURE

Report of the
Commissioner of the
General Land Office
for the year ending
June 30, 1904

WASHINGTON

1905

FISHERY RESOURCES OF THE UNITED STATES

Senate Document No. 51, "Fishery Resources of the United States," has been made available to the public by the United States Congress. Congress has long felt the need for a condensed, readable book that would serve as a basic reference on the fisheries and fishery industries of the United States, and at its request, the Fish and Wildlife Service of the Department of the Interior prepared an attractive illustrated book of 135 pages that will appeal to everyone. Each page tells a living story in words and pictures of an important phase of the Nation's fisheries. The book will be of interest to fishermen, processors, dealers, anglers, and the general public. It is particularly suited for use in the public schools in connection with courses in biology, geography, and civics.

Copies may be purchased at 40 cents each from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

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